

# Isthmian Canal Commission 1903-1904

Chair:

Jorge Luis Flores

Vice Chairs:

Emma Sutherland

Stevan Tempesta Jr.

Alexa Cárdenas



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## Isthmian Canal Commission 1903-1904

Dear delegates,

Welcome to the Isthmian Canal Commission 1903-1904. My name is Jorge Luis Flores and I will be your chair for this committee, along with your vice-chairs Alexa Cardenas, Emma Sutherland and Stevan Tempesta Jr. As members of the Isthmian Canal Commission (ICC), you will be tasked with coming up and discussing plans for the building of the Panama Canal, a remarkable feat of human engineering, whose results amaze people even today, and will have to balance American, Colombian and Panamanian interests. Although this committee will be mostly structured as a Specialized Agency, be aware that the construction of the canal had its fair share of surprises and unforeseen developments, meaning that we will surely involve some crisis elements!

The Dais is extremely excited to welcome you to this committee. Alexa, one of your Vice-Chairs, is an English Literature and History double major in her second year at McGill. Born in Panama, she started doing Model UN in 2010. She participated as a delegate in SSUNS in 2014 and is looking forward to contributing as staff this year. Having worked at the Biomuseo in Panama, Alexa is more than familiar with Panamanian history. She is thrilled to chair a committee based on her home country and is grateful to everyone who has taken an interest in Panama's role within the world's history.

Emma Sutherland will be your vice-chair for this committee. She is a third-year student in Biodiversity and Conservation with a minor in Geographic Information Systems. She first discovered Model UN in her first year of Cegep, and has since participated in various committees as delegate, crisis staff or dais member. Having recently returned from a field study semester in Panama, she is eager to explore this important part of Panama's history alongside a group of engaged and informed delegates.

Stevan Tempesta, Jr. has fulfilled a variety of roles in Model UN conferences. He has participated in several high school conferences, competed for McGill's team, and taught Model UN to students all over the world in camps run in the United States. He is completing a dual honours degree in Political Science and Psychology, jamming in as much nefarious activity as possible while managing that schedule. He also acted for a year as the VP of Internal Operations for IRSAM, the International Relations Students' Association of McGill. His expertise in MUN, coupled with his passion for history and politics, make him very excited to see the unfolding of this committee.

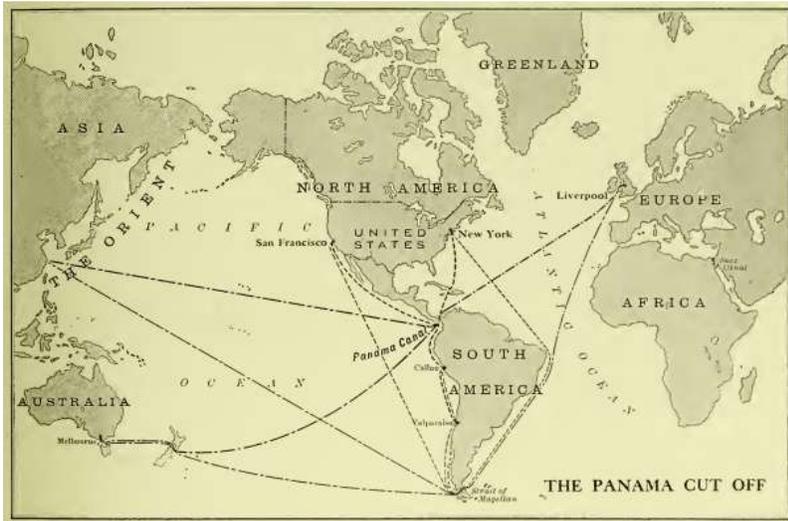
Lastly, let me introduce myself. I am Jorge Luis Flores and this is my last year at McGill as an Honours Microbiology and Immunology student. I was born in Venezuela and have always had a passion for the history and culture of Latin America. In addition, I have been very passionate for politics and history at large since high school – this marks my 4th year doing MUN and 6th committee as a staffer at McGill! Having a keen interest for the role of the United States in the region, I am very interested to see how you, the delegates, handle this landmark of human history that marked the imaginary of 3 nations and gave birth to one.

Looking forward to meeting you,  
Jorge Luis Flores



## Introduction

Imagine yourself an explorer, entrepreneur, or statesman any time before the Wright Brothers would take flight at Kitty Hawk. With the North and South American landmasses stretching well between the North and South Poles of the globe, how would you get from Atlantic Ocean to Pacific, short of nautically circumnavigating an entire continent? More importantly, how would you move goods, or your family, or troops from one sea to the next? In time, each of these actions would become a necessity for various powers across the globe. The first to see the virtue in a continental shortcut was Spanish conquistador Vasco Nuñez de Balboa in his pillages through Central America in 1513. Balboa had noted that it was merely a strip of land keeping these two oceans apart, far less than 150 kilometers wide. The Holy Roman Emperor Charles V would later order the first survey of the Panamanian land about twenty years later in 1534, where his regional governor famously told him that it would be impossible for anyone to ever build a ship canal in Panama.<sup>1</sup> The world would daringly accept that challenge, and more than 300 years later, in the late 19th century, the audacity of the human spirit would pit itself



Map of some important trade routes, both their current path and the projected canal path. As an example, the canal would make a trip between San Francisco and New York more than half as short. "Distance saved by the Panama cutoff," Willis J. Abbot, from *The Panama Canal: an illustrated historical narrative*, 385.

against the strongest, most concerted efforts of Mother Nature, to attempt what would become one of the greatest technological feats in history.

While the French were the first to actually put tools to the earth in Panama, the Americans were giving serious consideration to the task as early as 1869 under newly minted President

Ulysses S. Grant, who ordered a wide umbrella of surveys of potential Central American

canal zones.<sup>2</sup> It was here that the materialized Canal would take shape, as its contemporary route almost identically matches that of the survey ordered by Grant.<sup>3</sup>

<sup>1</sup> "Canal History," *Autoridad del Canal de Panamá*, accessed May 25, 2017, <http://www.pancanal.com/eng/history/index.html>, *Some early canal plans*.

<sup>2</sup> Jon T. Hoffman, *The Panama Canal: an army's enterprise* (Washington, D.C.: Center of Military History, United States Army, 2009), 3-6.

<sup>3</sup> "Canal History," *Some early canal plans*.



## Isthmian Canal Commission 1903-1904

After almost two decades' worth of fruitless labor, plus the lives lost in the pursuit of the seemingly unachievable, the French's canal enterprise *Compagnie Nouvelle du Canal de Panama* was sold to the United States and received by President William McKinley on December 2, 1899.<sup>4</sup> Fast-forward to the Roosevelt Administration where President Roosevelt, frustrated and impatient from stalled negotiations with the Colombian government to begin construction on the Canal,<sup>5</sup> appointed the Isthmian Canal Commission. This government body composed of international members, had the role of devising plans for the construction of a canal across the Isthmus of the province of Panama.

This is where your journey will begin. It was a feat in and of itself to finally negotiate the ability to break ground in Panama, but this is far from the end of the road. To be successful, and to connect the world's largest, most punishing bodies of water for the first time, you must learn from the earlier mistakes of the French, and be inventive in your approach. You will have to navigate active military conflict, the perils of the indomitable Panamanian geography that has already claimed hundreds of lives in previous attempts to beat back its encompassing jungles, the frustrations of a construction company unable to meet expectations through no fault of their own, the complicated social dynamics of gridlocked international negotiation, multiple parties with vastly different interests all trying to get their hands on the project, yellow fever, and everything in-between. The Panama Canal is one of the seminal achievements of the 20th century precisely for these difficulties – but the tasks presenting as the most difficult are often those most worth doing. Our collective history can be hung on a timeline of exploration and achievement, and in that tradition, the trumpets of Manifest Destiny demand that the world connect itself in a perfect ebb and flow between Pacific and Atlantic – to usher in a new era of enterprise, of scientific advancement, and international relations. Will you be the first to break the unconquerable, unforgiving Central American landscape, and finally will into existence a Panama Canal?

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<sup>4</sup> Ibid.

<sup>5</sup> Ibid.



## Topic 1: Domestic Affairs and Internal Turmoil

### Background

Panama's desire to become an independent, sovereign state with its own national identity (known as *panameñismo*) can be traced back to its independence from Spain on



Political division of the Republic of Gran Colombia in 1824. "División política de Colombia en 1824," *Wikimedia*, from [https://commons.wikimedia.org/wiki/File:Gran\\_Colombia\\_map\\_1824.jpg](https://commons.wikimedia.org/wiki/File:Gran_Colombia_map_1824.jpg).

November 28, 1821.<sup>6</sup> Following this relatively civil split, the wealthy Panamanian elites held an open town meeting and, swayed by the ideas of Simón Bolívar (the heroic figure that became the face of the Spanish American independence movement) decided to join the Republic of Gran Colombia.<sup>7</sup> Panama underwent an administrative and jurisdictional change in status as a result of the political struggle between federalists and centralists.<sup>8</sup> Nationalistic

sentiment in the isthmus was tightly linked to economic and trade policies. These were under the Gran Colombian government's control in Bogotá, instead of in the hands of the Panamanian rebellion leaders who had ensured the country's independence from Spain. Between 1830 and 1840, there were multiple unsuccessful attempts at independence from Simón Bolívar's Republic.<sup>9</sup>

### External influences on Panamanian politics

Despite the Panamanian efforts, the surrounding world powers had already established their hegemony over the province and were actively fighting for territorial claims. Two of the most prominent players were the British and the American forces. As a reaction to Britain's claim to Bocas del Toro (the north-westernmost province of modern-day Panama), the U.S. made a deal with the Colombian government to guarantee

<sup>6</sup> Robert C. Harding, *The History of Panama* (Westport, CT: Greenwood Press, 2006), 16.

<sup>7</sup> Ibid.

<sup>8</sup> [https://en.wikipedia.org/wiki/Separation\\_of\\_Panama\\_from\\_Colombia#Prelude](https://en.wikipedia.org/wiki/Separation_of_Panama_from_Colombia#Prelude)

<sup>9</sup> Ibid.



Colombian sovereignty over Panama: the Bidlack-Mallarino Treaty of 1848.<sup>10</sup> This treaty kick-started the complicated relationship between Panama and the United States, with the U.S. gaining military intervention rights over Panamanian soil in order to protect their interests, while simultaneously limiting the domestic sovereignty of the Colombian government.



Cartoon and newspaper article depicting the Watermelon War of 1856. "Frank Leslie's Illustrated newspaper," *Kaosnared blog*, <http://kaosnared.net/wp-content/uploads/2016/04/web-Frank-Leslies-Illustrated-673x1024-tajada-de-sandia-673x1024.jpg>

The massive influx of people brought about by the California gold rush of 1849 demanded the creation of a faster route to reach the East Coast of the United States. A likely candidate was the Isthmus of Darien, the narrowest strip of land between the Caribbean and the Pacific coast and also known as the Isthmus of Panama. Because the 1848 treaty had granted the U.S. transit rights across the isthmus, the Panama Railroad Company was formed soon after, led by William Henry Aspinwall.<sup>11</sup> The construction of the Panama Railroad, aside from introducing diverse ethnic groups into the social sphere of the isthmus, gave rise to yet another revival of nationalist feelings in retaliation to the United States imposing their anglicized culture on the Hispanic country. The railroad was completed in 1855 and the cost exceeded 7 million USD.<sup>12</sup> The

income generated by the people crossing Panama through the railroad became very significant to the

Panamanian economy and allowed Panama City to become a hotspot for businessmen. However, this effect was only felt in the higher strata of society. A significant number of poor, peasant farmers were left unemployed as Americans came to dominate the entire area surrounding the railroad.

Tensions between Americans and Panamanians escalated due to factors such as blatant racism and disregard for Panamanian culture on behalf of U.S. immigrants.

<sup>10</sup> Harding, *The History of Panama*, 17.

<sup>11</sup> *Ibid*, 19.

<sup>12</sup> *Ibid*, 20.



Frustrations boiled over in what came to be known as the “Watermelon War” of 1856.<sup>13</sup> An American traveller waiting for a ship came up to a black Panamanian vendor’s stand and helped himself to a slice of watermelon, which he refused to pay for. The vendor protested, but was threatened with a pistol by the traveller, stirring up a fight that left at least 16 dead. The brawl continued until the Isthmus Guard put a stop to it. Public opinion of Panama in the United States came to be characterized by racism, a sense of superiority, and derogatory stereotypes. The first U.S. military intervention in Panama occurred six months after this incident, justified by the Monroe Doctrine and the Bidlack-Mallarino Treaty, in which U.S. soldiers landed in Panama City to demand restitution from the Colombian government for damages to the railroad.<sup>14</sup> From this point onwards, it was evident that the United States was more than willing to use force in its endeavour to protect their economic interests in Panama and that racial and cultural beliefs would come to shape Panamanian society.

### Internal political tensions

Tensions with Colombia reached their peak towards the end of the 19<sup>th</sup> century, especially with the lingering effects of the Thousand Days’ War (expanded on in Topic 2). Panama, a transit zone now viewed as a protectorate of the United States, still craved for sovereignty. After the failure of the *Compagnie Nouvelle du Canal de Panama* – headed by the Frenchman responsible for completing the Suez Canal, Ferdinand de Lesseps – to build a sea-level canal that ran through the continental divide in the Isthmus, the Americans stepped in. In 1902, the United States purchased the unfinished work from the French company and the Colombian government approved the creation of a canal zone in Panama. Nonetheless, the treaty ratifying this agreement, the Hay-Herrán Treaty, was declined by the Senate of Colombia in 1903, with no regards to the interests of the Panamanian population.<sup>15</sup>

Now, in 1903, this desire has been once again rekindled. It is the delegates’ task to think of the possible consequences that unrest within Panama can cause in regards to the construction of the Panama Canal and find solutions that will both satisfy the Panamanian people and ensure the completion of the project.

### Questions to consider

1. Is Panama economically and politically ready for emancipation? Will the separation process be smooth and diplomatic or forceful and military?

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<sup>13</sup> Ibid, 21.

<sup>14</sup> Ibid.

<sup>15</sup> Bamber Gascoigne, “History of Panama,” *History World*, accessed May 24, 2017. <http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=ab28>.



2. Does Panama have the military resources to fight back against a Colombian attempt at reincorporation?
3. If the United States expresses their willingness to support the Panamanian cause, what issues about sovereignty will this raise?
4. Is the American cooperation philanthropic or in their own interests? To what extent can any third party be trusted by the Panamanians?
5. What factors are decisive and crucial in establishing an independent nation with a self-ruling government?



### Topic 2: International Conflicts

#### Background

The idea of a canal across the Central America held the potential to open a new era of international trade; one where goods and people could move with unprecedented speed from one ocean to the other. For the United States, the 1840s marked a period of westward territorial expansion which made such a route even more appealing.<sup>16</sup> The resulting increase in traffic between the East and West coasts was compounded by the beginning of the California Gold Rush in 1848. As reports of gold deposits spread, prospectors from the Eastern United States, Latin America and China poured into California by the thousands.<sup>17</sup> Some opted for a terrestrial route across Mexico or the United States, others sailed around the tip of South America, and still others sailed to the Isthmus of Panama, travelling across by mule before boarding a ship to San Francisco.<sup>18</sup>

In 1849, the United States held talks with Nicaragua resulting in a treaty which granted them exclusive control of a trade route across Nicaragua in exchange for protection from foreign intervention. The same year, Nicaragua gave the American-owned Accessory Transit Company rights to build a canal.<sup>19</sup> By 1850, it seemed that an attempt to undertake such a canal project was imminent. Both the United States and Great Britain held contending interests in Central America, and the expected canal across Nicaragua provided some grounds for an agreement. They signed the Clayton-Bulwer treaty in 1850, guaranteeing the neutrality of the canal and stating that neither side would obtain exclusive control of the canal. It also stated that neither side would “occupy, or fortify, or colonize, or assume or exercise any dominion over Nicaragua, Costa Rica, the Mosquito Coast or any part of Central America.”<sup>20</sup>

#### First attempts at building a canal

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<sup>16</sup> John Umbeck, “The California gold rush: A study of emerging property rights,” *Explorations in Economic History* 14, no. 3 (1977): 203, doi: [https://doi.org/10.1016/0014-4983\(77\)90006-7](https://doi.org/10.1016/0014-4983(77)90006-7).

<sup>17</sup> *Ibid.*, 204.

<sup>18</sup> Rebecca Onion, “The Journey to the California Gold Rush Was No Joke. This Map Was a Prospector's Friend,” *Slate*, last modified November 7, 2013, [http://www.slate.com/blogs/the\\_vault/2013/11/07/gold\\_rush\\_map\\_guided\\_prospectors\\_headed\\_to\\_california.html](http://www.slate.com/blogs/the_vault/2013/11/07/gold_rush_map_guided_prospectors_headed_to_california.html).

<sup>19</sup> Lawrence A. Clayton, 1987, “The Nicaragua canal in the nineteenth century: prelude to American empire in the Caribbean,” *Journal of Latin American Studies* 19, no. 2 (1987): 325, doi: <https://doi-org.proxy3.library.mcgill.ca/10.1017/S0022216X00020101>.

<sup>20</sup> *Encyclopædia Britannica, 11<sup>th</sup> Edition, Volume 6, Clayton-Bulwer Treaty* (Cambridge: Cambridge University Press, 1911), [https://en.wikisource.org/wiki/1911\\_Encyclop%C3%A6dia\\_Britannica/Clayton-Bulwer\\_Treaty](https://en.wikisource.org/wiki/1911_Encyclop%C3%A6dia_Britannica/Clayton-Bulwer_Treaty).



A first attempt at constructing the canal across Nicaragua was carried out between 1887 and 1893, at a cost of 6 million USD. However, the Panic of 1893 brought the project to a halt. Considered by some to be the worst depression experienced by the United States up to that time, it was caused in part by railroad companies overextending themselves by taking over competitors to assure continued expansion. The Maritime Canal Company, which held the contract for the Nicaragua Canal project, unsuccessfully attempted to re-finance the project during this time. Consequentially, due to lack of funds, the project came to an end.<sup>21</sup> Meanwhile, the French had been attempting to construct their own canal across the Isthmus of Panama, a project that was increasingly plagued by a range of issues. By 1900, the French public had lost faith in the project, funding was unavailable and the French government would not provide support for the initiative.<sup>22</sup>

The Hay-Pauncefote treaty, ratified in 1901 between the United States and Great Britain, eventually replaced the Clayton-Bulwer treaty. It allowed the United States to undertake the project and maintained the neutrality of the canal.<sup>23</sup> The idea of a canal across

Nicaragua had not completely been abandoned, and the United States congress was still debating the two proposed routes. Under the leadership of Philippe Bunau-Varilla, the *Compagnie Nouvelle du Canal de Panama* lowered the price from 109 million USD to only 40 million USD for all their records, excavations and equipment related to their attempt to build the canal. This created a strong monetary incentive for the Panama route. On May 14, 1902, a volcano named Momotombo erupted in Nicaragua, only a few days after a volcanic eruption on the island of Martinique had killed thirty thousand people. The Panamanian lobbyists highlighted the danger of volcanic activity in the region: three days before the final vote, they gave senators stamps which depicted Momotombo erupting onto a railroad. The American Senate ultimately voted for the Panama route by a vote of forty-two to thirty-four.<sup>24</sup>



This stamp was sent to every American senator to prove the danger of volcanic activity in Nicaragua and sway them into voting for a route across Panama. "Momotombo 1900 edition stamp," *Wikimedia*, from [https://commons.wikimedia.org/wiki/File:Momotombo\\_1900\\_Edition\\_Stamp.jpg](https://commons.wikimedia.org/wiki/File:Momotombo_1900_Edition_Stamp.jpg).

### Political climate in Colombia and relations with the U.S.

<sup>21</sup> Lawrence, "The Nicaragua canal in the nineteenth century," 328.

<sup>22</sup> Reuben F. Hull Jr., "The French Attempt to Construct a Canal at Panama," *Engineering the Panama Canal* (2014): 24-25, doi: <https://doi.org/10.1061/9780784413739.002#sthash.j6X306my.dpuf>.

<sup>23</sup> *Encyclopædia Americana, Hay-Pauncefote Treaty* (New York: Grolier, 1920), [https://en.wikisource.org/wiki/The\\_Encyclopædia\\_Americana\\_\(1920\)/Hay-Pauncefote\\_Treaty](https://en.wikisource.org/wiki/The_Encyclopædia_Americana_(1920)/Hay-Pauncefote_Treaty).

<sup>24</sup> Lawrence, "The Nicaragua canal in the nineteenth century," 352.



While external forces attempted to secure influence over what promised to be a lucrative project, Colombia was contending with conflicts within its own borders. By the mid-1800s, Colombia's political landscape was dominated by two parties: the Conservatives, who favoured strong central government and close ties to the Roman Catholic church, and the Liberals, who favoured limited government intrusion and low taxes.<sup>25</sup> The election of 1886 brought a new constitution, allowing the Conservative president to appoint departments and consolidate power. By the mid-1890s, Liberals were aggrieved by their exclusion from the political process and blamed Conservative fiscal policies for plummeting coffee prices. Towards the end of the century, Colombia was entering an economic downward spiral which resulted in increasing crime and corruption, eventually escalating into an armed conflict known as the Thousand Day's War.<sup>26</sup> A coup in 1900 replaced the president Manuel Antonio Sanclemente with Jose Manuel Marroquín, who decided that the Liberals were on the point of defeat and that no peace concessions would be granted. After the fighting transitioned to guerilla warfare and the conflict became increasingly bloody, Marroquín made an amnesty declaration in 1902.<sup>27</sup>



The 1902 *Tratado de Wisconsin* put an end to the hostilities known as the Thousand Day's War. "Guerra mil días," *Colombia in 20th century*, from <http://colombiain20thcentury.blogspot.ca/>.

The same year, the war officially ended with the signing of the Wisconsin Treaty by the Liberal General Herrera.<sup>28</sup> Between 1899 and 1902, the Thousand Days' War resulted in over 120 000 deaths.<sup>29</sup> The war left Colombia vulnerable, and unable to offer significant diplomatic or military resistance against the United States.<sup>30</sup>

In 1902, the United States opened negotiations with Colombia through the Colombian ambassador Jose Vincente Concha. The United States' initial demand was for a perpetual cessation of a 10-mile strip of land around the canal, which would include Colón and Panama City. Concha responded with a counter-offer for a six-mile zone, which would cost the U.S. 7 million USD upfront and an annual rent of 600 000 USD over a 99-year lease. In response, the United States sent troops to occupy trains passing along the Panama railroad. Concha refused to sign any treaty until American troops stopped occupying

<sup>25</sup> G. Demarest, "War of the Thousand Days," *Small Wars and Insurgencies* 12, no. 1 (2001): 2, doi: <http://dx.doi.org.proxy3.library.mcgill.ca/10.1080/714005374>.

<sup>26</sup> *Ibid.*, 3.

<sup>27</sup> *Ibid.*, 24.

<sup>28</sup> *Ibid.*, 20.

<sup>29</sup> *Ibid.*, 26.

<sup>30</sup> *Ibid.*, 1.



Colombian soil.

At this stage, the Colombian chargé d'affaires, Thomas Herran, took over negotiations.<sup>31</sup>

By 1903, the United States and Colombia find themselves in tense negotiations. The outcome, whatever it may be, will affect future relations between both countries, as well as the construction and functioning of the canal itself. Colombia is still recovering from the internal turmoil of the past few years, and must contend with mounting external pressures. The United States wishes to secure a financially favourable arrangement, controlling the area around the canal and ensuring a stable situation for the project to take place. The issue of sovereignty will come into play as various parties attempt to gain control over the future canal and its immense financial potential.

### Questions to consider

1. How will the agreement affect Panama's sovereignty once the project has been undertaken?
2. How can Colombia ensure a strong negotiating position despite its current political instability?
3. Will the American people be favourable to the project? How will public perception come into play on the international stage?

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<sup>31</sup> Noel Maurer and Carlos Yu, "What TR Took: The Economic Impact of the Panama Canal, 1903–1937," *Journal of Economic History* 68, no. 03 (2008): 711, <http://www.jstor.org.proxy3.library.mcgill.ca/stable/40056435>.



### Topic 3: Logistical and Engineering Challenges

#### Background

Although political issues – both within the region and internationally – are sure to present major roadblocks to the construction of the canal, the logistical and

engineering aspects will undoubtedly bring about an even larger number of issues. Despite the French's success and experience

in building the Suez Canal, they faced enormous challenges in the Panamanian Isthmus.<sup>32</sup> Forced to leave the continent while abandoning most of the equipment, French officials involved were forever tainted by the project's failure and by the many scandals that surrounded it.<sup>33</sup>

It is evident in retrospect that many elements of the French plan for the canal doomed their illustrious efforts to failure. They neglected to properly conduct sanitation campaigns, for example, leaving their workforce perpetually at the mercy of debilitating tropical diseases. Some of their engineering choices were ill-suited to the complex topography of Central America.<sup>34</sup> Finally, they were woefully unequipped to manage labour in a hostile tropical climate, with workers being afflicted by societal challenges as much as sanitary ones. Members of this committee must understand how certain decisions of the French project caused its failure and inform their future decisions in consequence. If the Isthmian Canal Commission (ICC) is unable to find innovative solutions to the issues of sanitation, engineering, and labour, then the failure of this project will forever haunt the Colombian and American imaginaries.

#### Tropical diseases and sanitation

In any large-scale engineering project, it is important to keep in mind the sanitary conditions of both the work environment and the quarters where workers rest, eat and sleep. The necessity of such precautions, in conjunction with the many tropical diseases



From pestilence to landslides, workers will face many risks in the construction of the canal, especially at excavation sites. "Los comienzos: la necesidad suscita acción," PAHO, from [http://www.paho.org/hq/protected/esp\\_scroll.htm](http://www.paho.org/hq/protected/esp_scroll.htm).

<sup>32</sup> Julie Greene, *The canal builders: making America's empire at the Panama Canal* (New York: Penguin Press, 2009), 2.

<sup>33</sup> Charles D. Ameringer, "Bunau-Varilla, Russia, and the Panama Canal," *Journal of Interamerican Studies and World Affairs* 12, no.3 (1970): 329-330.

<sup>34</sup> Francisco Javier Bonilla, *An environmental history of the Rio Grande in the Panama Canal zone, 1521 – 1950*, Master diss. (University of Louisville, 2016), 54-55.



endemic in South America, make sanitation the most important logistical aspect of this project. It is estimated that improper management of this area led to the loss of 22,000 lives between 1881 and 1888 during the French construction efforts.<sup>35</sup> Moreover, many high-ranking officials either caught diseases such as yellow fever and malaria, or were so afraid of dying of sickness that many would bring with them a coffin in case they perished.<sup>36</sup> These fears were not baseless: some reports state that as many as 2 out of 3 Frenchmen did not make it back home from the Isthmus.<sup>37</sup> Due in equal parts to neglect and ignorance, the tropical ills of yellow fever and malaria prevented the French canal from materializing. To prevent a second failure, the members of the ICC must learn from the mistakes that occurred during the French construction efforts and muster new scientific developments that could allow them to triumph over the tropical climate.

Despite the endemic nature of yellow fever and malaria in the region, these diseases by no means render the construction of a canal impossible. It is simply a matter of taking appropriate precautions via proper sanitation efforts to limit the spread of diseases. For instance, throughout the French excavations, observers noted that workers were constantly exposed to unsanitary, quasi-pestilent conditions at worksites.<sup>38</sup> Despite the cost and challenge of completely eliminating the risk of disease and accidents in a construction site plagued by landslides and constant rains, such conditions are to be mitigated to avoid exorbitant costs in labour and health services.

It is now known that yellow fever – like malaria – is caused by infectious agents that can be transmitted through mosquito bites.<sup>39</sup> The absence of this key piece of information made the French's task much more difficult and led them to making several mistakes which are – in hindsight – easily avoidable. With these new scientific developments, sanitation campaigns could easily be targeted at preventing disease via the eradication of mosquitoes. For inspiration, members of the ICC could take a look at the United States Army's success in drastically reducing yellow fever incidence in Cuba.<sup>40</sup> There, the incredible efforts of Cuban and American doctors and scientists succeeded in drastically reducing the rates of yellow fever.

It is crucial that the ICC address the issue of sanitation in the adjacent urban centres as well. Although the least expensive course of action would be to limit any efforts to workers for the canal, members of the committee must understand that adjacent towns and urban centres can act as reservoirs for these tropical diseases,<sup>41</sup> meaning that

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<sup>35</sup> Ameringer, "Bunau-Varilla, Russia, and the Panama Canal," 329.

<sup>36</sup> Greene, *The canal builders*, 42.

<sup>37</sup> Willis J. Abbot, *The Panama Canal: an illustrated historical narrative of Panama and the great waterway which divides the American continents* (New York: Whitman, 1922), 119.

<sup>38</sup> Bonilla, *An environmental history of the Rio Grande*, 54.

<sup>39</sup> *Ibid.*, 63.

<sup>40</sup> Abbot, *The Panama Canal: an illustrated historical narrative*, 253-254.

<sup>41</sup> *Ibid.*, 255.



action there must also be considered. Cities will present a particular challenge for two reasons. They are likely to require significant improvements in infrastructure to make any sort of sanitation effort long-lasting. In addition, the local population – who is mostly immune to yellow fever – will certainly be reluctant to participate, finance and be inconvenienced by all of these projects which would benefit them only marginally, if at all.<sup>42</sup> Thus, in addition to devising a comprehensive and cost-effective sanitation plan, members of the ICC will also be tasked with finding compromises between the necessity of such plans, and the comfort and interest of the citizens of the area.

### Engineering, design and logistical decisions

Obviously, one of the key question this committee must eventually address is “What will the canal look like?” Although there have been thousands of canals in human history and nearly as many designs, there are few – if any – that have the reach and scale of a canal crossing the Isthmus of Panama. From the type of canal and the trajectory, the materials to be used and strategies to mitigate risks, to how to organize life and work in the canal, important choices are not in short supply. In this regard, members of the ICC have a unique opportunity to leave their mark in history, but they also face the incredible challenge of taking decisions no man or woman has ever taken before.

The French engineering team – lead by Ferdinand de Lesseps – had initially envisaged a sea-level canal, although in their final efforts they opted for a lock-canal due to the significant complications that their former plan faced.<sup>43</sup> While sea-level canals are easier to operate because ships can simply pass through the whole canal without added components, building them poses a great challenge due to the amount of digging that has to be done. In contrast, lock-canal are more complicated to operate and they often require much more involved engineering efforts, but their advantage comes in reduced digging and increased flexibility. Taking the results of the French venture as an example, de Lesseps’s main mistake was exporting his experience in the Suez Canal to the Americas, despite both regions having enormously different topographies. Indeed, his decision to pursue a sea-level canal for most of the construction compounded the nefarious effects of the tropical climate:



Despite its ultimate demise, the French project left behind a significant amount of excavations, amongst them the passing through Culebra Cut pictured above. “Where the French did their best work,” Willis J. Abbot, from *The Panama Canal: an illustrated historical narrative*, 115.

<sup>42</sup> Ibid., 258.

<sup>43</sup> Bonilla, *An environmental history of the Rio Grande*, 53.



disease, heavy rains and mudslides took a heavy toll on the canal workforce, and were noticeably aggravated by this engineering choice.<sup>44</sup> In the end, the switch was made to a lock-canal, but much of the excavations made for the initial sea-level canal are still in place.

It is likely that fully committing to the lock-canal would require changes in the tracing of the canal, basically throwing away the significant digging that the French performed and further increasing construction costs (it is estimated that the French excavations would save about 25 million USD if used).<sup>45</sup> Moreover, using a lock-canal would require the flooding of vast areas, many of them currently inhabited. It thus rests on the hands of the ICC to decide the type of canal to pursue, where to build it, and how to balance the benefits of different plans and the logistical, political, and financial challenges that could arise.

Lastly, the committee must also consider the issues of labour, both manual and unskilled. Building the canal will require the participation of hundreds of professionals and thousands of manual workers, so it is to be expected that most of these men will come from outside the region.<sup>46</sup> For all of these workers, considerations ranging from housing, sanitation and basic services to entertainment and leisure must be taken into account. Furthermore, it is unlikely that such a large and diverse construction site will go without any incidents. It is up to the committee to address all of the challenges listed above, as well as to face any unforeseen issues that might arise.

### Questions

1. What steps could be taken to curb mortality and disease in the construction sites? What would be the benefits – and the disadvantages, if any – of pursuing such efforts?
2. Should sanitation efforts be focused on preventive sanitation or should this issue only be addressed once construction starts?
3. What engineering decisions can be taken to curve some of the other challenges of the canal (e.g. disease, risk of conflict with local communities)? What other consequences could those choices have?
4. How will labourers from all across the Americas be attracted to work at the canal? What kinds of accommodations and services should be provided in order to ensure efficiency?

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<sup>44</sup> Ibid., 53.

<sup>45</sup> Abbot, *The Panama Canal: an illustrated historical narrative*, 121.

<sup>46</sup> Ibid., 343.



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